

## **DESCRIPTION**

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### **1) TITLE OF THE INVENTION :**

The title of this invention is “ The way to avoid the accident of surgical operation of doctor and it's observable appliance . ” .

### **2) THE ART FIELD :**

This invention is in the field of optical device and electronic image storage device . By reason of the lens forms an image . The electronic image storage device is consists of a lens of video camera , video cassette recorder , and monitor . This invention is a new kind of useful of electronic image storage device .

### **3) BACKGROUND OF THE INVENTION :**

The prior art of electronic observable device is widely used in the human life and industry production . In the factory , the supervisor can sit in the office to observed and to operate the process of industry production . In the bank , the manager can to see the cashier's performance by use electronic observable device and accident as well . This instrument can also used by the guarder of building to record person entrance time , if there is an accident , people could consult the tape , which is recorded by electronic observable device , to check up when , where and who is in this place , therefore to look out who is caused of accident .

**In all , it concludes that the electronic observable device , which is named " The electronic image storage device " , consists of A lens of video camera , Video cassette recorder , and Monitor through a cable . They can connect a few of different products for different use . Therefore , We can making various related electronic image storage device according to specific purpose . This invention is a specifically designed for new kind of useful of electronic image storage device .**

#### **4) THE INTENTION OF THIS INVENTION :**

**When the doctor makes surgical operation . If his judgment is correct and the operation will be done according to the operational plan , it is a perfect operation . In other words , if the pain can relieve or the aggravation can be controlled , it proved that it is a successful operation .**

**But in fact , sometimes there might have mistakes during the operation . For example , Because of doctor carelessness , they operate the wrong body part or mistakenly cut the other normal body part . According to the report of the news paper , the accident of surgical operation hurt about 1 Million people and lead to hundred thousands people losing their lives per year only in the U . S . So the importance of this invention is that it could reduce these kinds of accidents happen , that is also the intention of this invention . The intention of this invention is to looking for a way to protect patient from accident injury in**

**surgical operation and to help doctor to avoid the mistakes in the surgical operation by observation to surgical operation .**

These theory and property are following : By reason of use the electronic image storage device . Place the lens of video camera to the above operate table nearer by operate lamp , then connect through a cable to the video cassette recorder , then to the monitor . Through electronic image storage device we can viewing and recording the all process of surgical operation , which the doctor does the operation to patient , and we can to know which part of body had been cut in the doctor's surgical operation .

Although , sometime for purpose of medical studies and research there are make a pictures of surgical operation . But this is a difference idea and intention with this invention .

The specific property of this invention are :

1) The intention of this invention is to looking for the way to avoid the accident happen of surgical operation of doctor .

2) The intention of this invention is to protect patient from accident injury in the surgical operation of doctor .

3) This invention is a new specific device to observe the process of surgical operation . This invention is used by other chief doctor or

patient's relative to viewing and recording the process of surgical operation .

This invention will be beneficial to the following principal aspect :

1) If the doctor and operator mistakenly operate the wrong part of body in the surgical operation . This invention could be used by observer ( either chief doctor or patient's relatives ) to call the operator to report the mistake and to correct it immediately . Therefore it could avoid the accident happen .

2) After operation , the patients could consult records to know which inward organs of his body has been cut . Therefore , they could better understand their recovery after operation . In that case , they will feel very inward peace .

3) Through observation it could promote doctor to do operation more responsible and more best . It also could prevent the doctor cheat patient after the failure of operation .

4) If there is any accident happen . People could consult the records , therefore , it is a convenient way to judge the causes of the accident .

5) Because everything is recorded during the operation , so the doctor must be very careful in surgical operation , therefore , the accident will be greatly decreased . On the other hand , the funds , used to claim

compensation for failure of operation , will be greatly decreased also . In that case , the cost of responsible accident's insurance and operation expenses for the doctor could be greatly decreased . Finally , it will save the public insurance expenses of operation and health plan .

In all , the patient could increase the trust towards the hospital equipment , doctor's art and safety in operation .

## **5) SUMMARY OF THE INVENTION :**

This invention is in the field of optical device and electronic image storage device . This invention have observed that the doctor does surgical operate to patient and to record it . These theory and property are follow : By reason of the lens forms an image by using the device of video camera , then the image is transmitted by cable to the video cassette recorder and to display on the monitor for viewing and to recording it .

Place a lens of video camera to the above operate table nearer by operate lamp , By reason of the lens forms an image , focus the lens of video camera and adjust the axis of lens toward to the object , that the object ( which is placed on the operate table ) can be viewing very clearly . Then the image can be transmitted by cable ( or by wireless ) to the video cassette recorder which can to receipt of it and to record of it . Then the image can be transmitted to the monitor to display on the screen of the monitor also .

There are open the all device when the surgical operation is beginning . We can viewing and recording the process of surgical operation by doctor at same time .

If the mistakes or the wrong operate by doctor was happen , the observer ( chief doctor or patient's relatives ) only pressing the another electric circuit switch down , the electric circuit is closed , can inform to the operator by the lamp and the sounder and to correct it immediately .

So it can be avoid that the accident of surgical operation of doctor could be happen .

#### **6 ) BRIEF DESCRIPTION ON THE DRAWINGS : ( 4 drawing sheets )**

**Fig . 1 :** The electronic image storage device consists of the lens of video camera , video cassette recorder and television , are connected by cables . It includes : the Operate lamp (1) , the ceiling (2) , the region of lamp light (3) , the lens of video camera (4) , the axis of lens (5) , the region of viewing from lens (6) , the cable (7) , the video cassette recorder (8) , the video cassette tape (9) , the cable (10) , the television (11) , the screen of television (12) , the operate table (13) , the object (14) .

**Fig . 2 :** The electronic image storage device consists of the lens of video camera , computer with CD – Recorder ( such as CD – RW , DVD – Recordable , DVD – Rewritable ) and monitor , are connected by cables . It

includes : the operate lamp (1) , the ceiling (2) , the region of lamp light (3) , the lens of video camera (4) , the axis of lens (5) , the region of viewing from lens (6) , the cable (7) , the cable (10) , the operate table (13) , the object (14) , the CD recorder of computer (20) , the CD desk (21) , the monitor (22) , the screen of monitor (23) .

**Fig . 3 :** The electronic image storage device consists of the lens of video camera with infrared Light emitted device , and the television with video cassette recorder , are connected by cable ( or transmitter by wireless ) . It includes : the Operate lamp (1) , the ceiling (2) , the region of lamp light (3) , the lens of video camera (4) , the axis of lens (5) , the region of viewing from lens (6) , the television with video cassette recorder (11) , the screen of television (12) , the video cassette tape (9) , the operate table (13) , the object (14) , the cable ( or transmitter by wireless ) (24) .

**Fig . 4 :** The electric circuit of sounder an alarm contained by the switch (15) , red lamp (16) , sounder (17) , storage cell (18) , and connected by cable (19) .

## **7) DETAILED DESCRIPTION OF THE INVENTION :**

Turning generally to Fig . 1 . The electronic image storage device consists of a lens of video camera , video cassette recorder and television through a cable .

To use this device , first placed the lens of video camera ( 4 ) to the above operate table ( 13 ) nearer by operate lamp ( 1 ) [ or at the ceiling ( 2 ) ] . Then focus the lens ( 4 ) and adjust the axis of lens ( 5 ) toward to the object ( 14 ) , which is on the operate table ( 13 ) , And the object ( 14 ) can be viewing very clearly by the lens of video camera ( 4 ) .

The video cassette recorder ( 8 ) and the television ( 11 ) could be placed to the another observable waiting room . There are the chief doctor or patient's relative can viewing and recording it .

The cable ( 7 ) is connect with the lens of video camera ( 4 ) and the in – terminal of the video cassette recorder ( 8 ) . Then the cable ( 10 ) is connect with the out – terminal of the video cassette recorder ( 8 ) and the in – terminal of the television ( 11 ) too .

But make sure the power to the all device is turned off . And the power supply is unplugged from the power source when connecting the device of the lens of video camera .

When the surgical operation by doctor is beginning . There are only push the switch of all device to turned on .

By reason of the lens forms an image by using the lens of video camera ( 4 ) . The object ( 14 ) , which is the part of surgical operation on the operate table ( 13 ) , forms an image by lens ( 4 ) , and transmits this image through cable ( 7 ) to the video cassette recorder ( 8 ) to recording it



. Then the image could be transmitted by cable ( 10 ) to the television ( 11 ) to display on the screen ( 12 ) .

The observer can be viewing and recording the all process of this surgical operation .

Then placed the red lamp ( 16 ) [ see Fig . 4 ] and the sounder ( 17 ) to the operate room nearby the operate table ( 13 ) . And placed the switch ( 15 ) in the observable waiting room nearby the television ( 11 ) . The cable ( 19 ) is connect with the switch ( 15 ) , red lamp ( 16 ) , sounder ( 17 ) and the storage bell ( 18 ) .

If the mistakes or the wrong operate by doctor was happen , the observer ( chief doctor or patient's relatives ) only pressing the switch ( 15 ) down to turned on , the electric circuit is closed , it can inform the doctor and operator by the red lamp ( 16 ) and the sounder ( 17 ) , and to correct it immediately .

So it can be avoid that the accident of surgical operation of doctor could be happen .